Mathematics M3e

Winter

(engl. Mathematics M3e)

Module-ID: FMA-INF-5013272

Link:	**(Angeboten wenn im LSF)**
Responsibility:	Prof. Dr. Robert Altmann
Lecturer:	, Prof. Dr. Robert Altmann
Classes:	• Lecture *Mathematics M3e* • Global tutorial *Mathematics M3e* • Group tutorial *Mathematics M3e*

Credit Points	Semester	Term	Duration	Language	Level
5	Winter	4.	1 Semester	english	Bachelor

Goals and qualifications:
The students acquire comprehension of and familiarity with concepts and methods that are relevant for subject-specific classes in the areas of engineering and computer science. They develop technical skills by applying those methods, in particular to subject-specific examples. The topical focus of the module is on stochastics as well as on advanced topics in Linear Algebra and Calculus.

Content:

- Probability and statistics
- Eigenvalues (deeper treatment, in particular diagonalization)
- Power series
- Fourier series
- Ordinary differential equations (e.g., Picard-Lindelöf, scalar ODE’s with separated variables, linear systems of ODE’s with constant coefficients, variation of the constant)

Workload:

	in class	self-study
Lecture	3 SWS / 42 h	66 h
Global tutorial	2 SWS / 28 h	
Group tutorial	1 SWS / 14 h	

Prerequisites for participation:	Pre-examination requirements:	Type of examination:

Applicability in curriculum:	- B.Sc. INF: Mathematik / Logik - B.Sc. INF: Mathematik (SPO 2027) - B.Sc. CV: Mathematik / Logik - B.Sc. CV: Mathematik (SPO 2027) - B.Sc. INGINF: Mathematik / Logik - B.Sc. INGINF: Mathematik (SPO 2027) - B.Sc. WIF: Verstehen - Pflicht - B.Sc. WIF: Mathematik (SPO 2027) - B.Sc. INF (bilingual): Mathematik / Logik - B.Sc. INF (bilingual): Mathematik (SPO 2027)

Comments:

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